

LEGAT, Ye.

Iron gate. Vokrug sveta no.7:32 J1'55. (MIRA 8:10)
(Iron gate)

LEGAT, Ye.

Cradle of the Yenisei. Vokrug sveta no. 12:28-30 D '55. (MLRA 9:4)
(Tadzhik--Description and travel)

CZECHOSLOVAKIA UDC 616.594-008.9(546.19)-057-074:613.632

PORAZIK, Ivan; LEGATH, Vladimir; PUCHA, Katarina; KRATOCHVIL, Ivan; Krajska Station of Hygiene and Epidemiology, of the Kraj of East Slovakia (Krajska Hygienicko-Epidemiologicka Stanica Vychodoslovenskeho Kraja), Kosice, Director (Riaditel) Dr I. Kratochvil.

"Evaluation of Exposure to Arsenic Trioxide in Working Environment by the Determination of Arsenic Content in Hair."

Prague, Pracovni Lekarstvi, Vol 18, No 8, Oct 66, pp 352-356

Abstract /Authors' English summary modified/: 21 workmen in a copper-producing plant exposed to an atmosphere containing 1.01 to 5.07 mg of As_2O_3 per cubic meter had a mean arsenic content of hair of 178 micrograms per gram. A group of workers in another plant exposed to concentrations of 0.08 to 0.18 mg/ cubic meter of arsenic trioxide had a mean arsenic concentration in hair of 56.6 micrograms per gram. Unexposed workers had a mean hair content of 0.149 micrograms per gram. The exposure time has little influence on the content of arsenic in the hair, but the amount in the air is most important. The workers did not suffer from clinical arsenic poisoning. 3 Tables, 5 Western, 3 Czech, 2 1/1 East German references. (Manuscript received 20 Aug 65).

- 21 -

Legatina, R.I.

7
Influence of accelerators on the polishing of glass. V. A. DUNKOVAN, P. N. ANDRUKO, P. I. LEGATINA, AND L. A. KAM-
TSEVA. *Suklo i Keram.*, 12 (12) 13-14 (1965). Tests were made
with different crocus products. The amount of accelerators, re-
gardless of method of feed, should be accurately determined; an
excess can even retard polishing. B.Z.K.
PM hrr

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CA LEGATOWA, B.

Analysis of elephant milk. S. Krauze and B. Legatowa
(Inst. State Hyg., Warsaw, Poland). *Mitt. Lebensm.-
Hyg.* 40, 321-4 (1949) (in French).—Milk taken from an
elephant after 6 months of lactation was whiter than cow
milk and had a distinct odor of coconut oil; acidity, 1.7%
Lugliet-Henkel; litmus reaction alk. The Reichert-
Meissl value was 4.7, the Polenske value, 30.4. L. L.

7

C.A. LEGATOWA, B.

Examination of the thickness and tightness of tin coating of lead tubes. B. Legatowa, E. Przybylski, and St. Krauze (Panstw. Zaklad Hig., Warsaw, Poland). *Roczniki Panstwowego Zakladu Hig.* 1, 503-22(1950)(French summary).— Small circles with raised edges are cut out with a help of a cork borer and coated with nitrocellulose lacquer on the concave side. The tin coating is removed when these circles are floating over the surface of concd. HCl, and estd. as stannous acid. The dithizone method for detg. Pb is described. Lacquered tubes give less Pb contamination than Sn-created ones. W. Szvalski

LEGATOWA, BRONISLAWA

Comparison of results of determination of lead content in toothpastes by the dithizone and polarographic methods. Edmund Przybylski and Bronisława Legatowa. *Roczniki Państwowego Zakładu Hig.* 7, 303-6 (1956) (English summary).—Both methods for the detn. of Pb in toothpaste gave comparable results. The toothpastes were dried, pulverized, and mixed with an equal wt. of lactose; a pellet was formed and hung in a calorimetric bomb lined with Pt. The pellet was burned with O at 30 atm. pressure. The residue from oxidation was dissolved in dil. HCl and Pb was detd. either by polarographic or dithizone method. In the latter method a photoelec. colorimeter, Summerson-Klett type, was used. The Pb content in the toothpastes as found by either method was from 1.25 to 65.5 mg. %. Polish standards permit a max. of 5 mg. %.

F. J. Hendel

LEGATOWA, B.

Mineral contamination of semolina. C. Hrzpalska and B. Legatowa. Roczniki Państwowego Zakładu Hig. 9, 376-381 (1957).--Investigation of semolina contamination by inorg. particles shows, that besides particles with magnetic properties, there is a high contamination by quartz, glass, and other silica compds. By employing 10% HCl, insol. ash was found, and by floating 100 g. of farina by means of CCl₄ and magnetic sepn., the contamination was detd. The large size and sharpness of mineral contamination found in semolina can be very dangerous for human use. G. Melnyk //

2

LEGATCWA, Bronislawa; HORDYNSKA, Sabina; BERNSTEIN, Irena

Determination of the mercury content in the grains of
cereals dressed and undressed with mercury preparations.
Roczn panstw zakl hig 14 no.3:221-224 '63.

LEGATOWA, Bronisława

Separation and identification of fluorescein dyestuffs
in cosmetics. Roczn. Panstw. Zakl. hig. 16 no.5:453-459
' 65.

1. Z Zakładu Badania Żywności i Przedmiotów Użytku
Państwowego Zakładu Higieny (Kierownik: prof. dr. M. Ni-
konorow).

LEGATONICZ, A.

Bulletin - Vol. 2, No. 10, 1954.

Order of magnitude of the field mass of a nucleon in a nonlinear meson field theory.
In English. p. 481.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, no. 9, Sept. 1955
Uncl.

POW

530.145

4343. Order of magnitude of the field mass of a nucleon in a non-linear meson field theory. M. MIASEK AND A. LEGATOWICZ. *Bull. Acad. Polon. Sci. Cl. 3, 2, No. 10, 481-4 (1954).*

Corresponding to Born-Infeld non-linear electrodynamics, a class of non-linear meson theories is investigated which reduce to the linear case for weak fields and where the field energy density is finite everywhere and has its maximum at the centre of the particle. The static scalar case with spherical symmetry is treated here. If the range of the non-linear modification of the field is assumed to be of the order of magnitude of nuclear dimensions, the "field mass" of the nucleon amounts to about 1/137 of the whole nucleon mass.

G. FIELD

37656

S/124/62/000/005/007/048
D251/D308

26.1410
AUTHOR:

Legatowicz, A.

TITLE:

Behavior of plasma in a rotating magnetic field

PERIODICAL:

Referativnyy zhurnal. Mekhanika, no. 5, 1962, 12,
abstract 5B55 (Inst. badań., Jądrow, PAN, 1961, no.
210/IX)

TEXT: The work consists of two parts. In the first part there is solved the equation of motion of a charged particle in a rotating electromagnetic field. The magnetic field is homogeneous and the electric field is directed along the axis of rotation and is linearly dependent on the transverse co-ordinates. Conditions are found for which the particle remains close to the axis. The energy of the particle is estimated for this case. In the second part is solved Cauchy's problem with homogeneous initial conditions for a system of macroscopic equations of a two-component plasma in a rotating electromagnetic field. For this a series of suppositions is made, by means of which in the Spitzer equations of motion for the component are preserved only the local derivative of velocity and the
Card 1/2

Behavior of plasma in a rotating ...

S/124/62/000/005/007/048
D251/D308

Lorentz force. The system is solved as an expansion in a small parameter of order v/c . The zero, first and second approximations are found with the aid of a Laplace transformation. From the approximations obtained it follows that: 1) Separation of the charges does not occur; 2) Oscillations of four distinct frequencies appear. The frequency of the revolution of the external field is found with which there occurs resonance in the component and the energy of the electromagnetic field transferred in this case to the ionic component is calculated. [Abstractor's note: Complete translation].

Card 2/2

24.2120

S/124/62/000/004/005/030
D251/D301

AUTHOR: Legatowicz, A.

TITLE: The method of solving the non-stationary motions of a plasma in an electromagnetic field

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 4, 1962, 11, abstract 4B59 (Referat. Inst. badań. jądrow. PAN, 1961, no. 243)

TEXT: A method is proposed for solving problems on the non-stationary motion of a plasma in an electromagnetic field. The method is based on the expansion of the solution as a series in a small parameter of order v/c where v is the electron velocity and c the velocity of light. The starting point consists of the equations of motion of electronic and ionized gases, the equations of continuity and Maxwell's equations for an electromagnetic field. The equations are written in dimensionless form. The equations of motion are simplified, terms are omitted with derivatives of the velocity with respect to the coordinates, with pressure gradients and the force

Card 1/2

The method of solving ...

S/124/62/000/004/005/030
D251/D301

of friction after calculating the exchange of impulses between electrons and ions. There remain only a term with a simple derivative of the velocity with respect to time and a force acting from the side of the electric and magnetic field. Conditions are derived, in which these simplifications are justified. The solution is expressed in the form of an expansion as a series in the small parameter α of order v/c . Equations are derived for successive approximations. In the zero approximation the electric and magnetic field, the density of electrons and ions is constant and equal to the initial value. The density of charge and current is equal to zero. For solving the equation in subsequent approximations, the Laplace transformation is applied to the equations of motion. [Abstracter's note: Complete translation.]

Card 2/2

LEGATOWICZ, Aleksander

Statistical method of reliability evaluation of automatic electric control systems. Archiw automat 7 no.3/4:465-471 '62.

1. Katedra Elektrotechniki Ogolnej, Politechnika, Warszawa.

L 1907h-63

E-T(1)/BDS/EEC(b)-2

AFMTC/ASD/ESD-3/RADC/APGC PG-h/

PL-h/PM-h/PO-h/PQ-h

ACCESSION NR: AP3006044

P/0034/63/000/008/0340/0342

AUTHOR: Legatowicz, Aleksander, (Dr.-Engr.)

TITLE: Statistical method for evaluating the operational reliability of electrical automatic systems

SOURCE: Pomiary, automatyka, kontrola, no. 8, 1963, 340-342

TOPIC TAGS: reliability automatic system, statistical evaluation automatic system reliability

ABSTRACT: A statistical method for evaluating the reliability of electrical automatic systems is presented. The economics of automation is based on two factors: 1) the advantages accruing from the correct functioning of the equipment, and 2) the frequency of faults occurring during operation. The reliability of performance is analyzed in regard to both these characteristics. Two basic concepts are defined: component and system, their operating characteristics being expressed in terms of the probability of failure, the average time of correct operation and the average frequency of failure. The relationship between the various characteristics is estimated by first assuming the most probable

Card 1/3

L 19074-63

ACCESSION NR: AP3006044

reliability function and then calculating the probability of a series of events which is the basis of known information about the component under consideration. Next, the desired equation for the probability function is obtained by requiring that the probability of events be maximum. In practice, the probability function is most conveniently resolved into a complete series of linearly independent functions: a power series is the simplest one to use. This method is applicable to series as well as parallel systems (in the first case, the failure of one element results in failure of the system; in the second case, the system fails only when all elements fail). The above method can also be modified for the case when components of the system are replaced before failure occurs. A system designed solely for functional considerations is usually of the series type; but if its reliability is insufficient, then parallel branches are connected either across the entire circuit or at least across the weakest components. The above method of analysis is applicable to such cases. The results of reliability analysis are being used for economic analysis, safety analysis and for optimization. Orig. art. has: 28 formulas.

Card 2/3

L 19074-63

ACCESSION NR: AP3006044

ASSOCIATION: Instytut Badan' Jadrowych (Institute of Nuclear Research)

SUBMITTED: 00

DATE ACQ: 11Sep63

ENCL: 00

SUB CODE: CG

NO REF SOV: 000

OTHER: 000

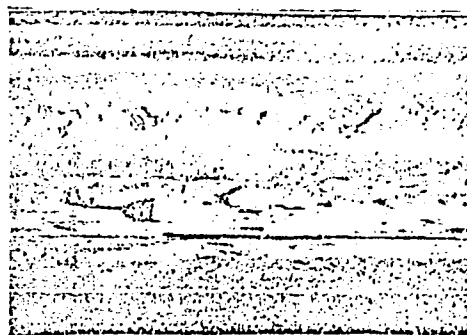
Card 3/3

L 04635-67 EWT(m)/EWP(k)/EWP(t)/ETI		IJP(c) JD/HW
ACC NR: AP6020935		SOURCE CODE: UR/0383/66/000/003/0038/0040
AUTHORS: <u>Chepurko, M. I.</u> (Candidate of technical sciences); <u>Buynovskiy, A. M.</u> ; <u>Smorshchok, V. S.</u> ; <u>Legavets, G. A.</u>		
ORG: none		38 B
TITLE: Rolling of <u>bimetallic pipes</u> of steel-copper, on a continuous pipe rolling mill 27 18		
SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 3, 1966, 38-40		
TOPIC TAGS: metal tube, pipe, bimetal, steel, copper, <i>metal rolling</i>		
ABSTRACT: A general discussion of the industrial production of bimetallic pipes (steel-copper and others) is presented. The discussion is based on the bimetallic pipe production method proposed by one of the present authors, M. I. Chepurko (Sposob izgotovleniya bimetallicheskih trub. Avtorskoye svidetel'stvo No. 87842, vydannoye Gostekhnikoy SSSR v 1950 g.). Experiments have shown that the best preliminary treatment for copper surfaces is a chemical one consisting of an alkali and acid application. To avoid defects in the copper member of the bimetallic pipe, care should be exercised not to overheat the copper member (see Fig. 1). It is concluded that, with present day techniques, it is possible to manufacture bimetallic pipes of various metals up to a diameter of 70 mm.		
Card 1/2		UDC: 621.774.5.001.6

L 04655-67

ACC NR: AP6020935

Fig. 1. Characteristic defects on the inner surface of steel-copper pipes of 57 x 6.0 mm cross section.



Orig. art. has: 2 graphs.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 004

awm

Card 2/2

GOL'DFARB, E.M.; LEGAVETS, L.V.

Performance of blast furnace air preheaters with dilution by a
preheated blow. Metallurg 8 no.3:3-5 Mr '63. (MIRA 16:3)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Blast furnaces) (Air preheaters)

GOL'DFARB, E.M.; LEGAVETS, L.V.

Determining the optimum frequency of reversing blast furnace
air preheaters. Izv. vys. ucheb. zav.; chern. met. 6
no.2:150-157 '63. (MIRA 16:3)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Blast furnaces—Equipment and supplies)
(Air preheaters)

LEGAY, E.

SCIENCE

Periodicals: PRZEGLAD GEODEZYJNY. Vol. 14, no. 9, Sept. 1958.

LEGAY, E. The PZO Ni 4 engineer's level; critical remarks. p. 345.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 4,
April 1959, Unclass.

LEGCHAK, B.S.

Prevent accidents in stope area. Bezop.truda v prom. 5 no.6:7-9
Je '61. (MIRA 14:6)

1. Nachal'nik upravleniya Primorskogo okruga Gosgortekhnadzora RSFSR.
(Maritime Territory--Coal mines and mining--Safety measures)

USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42379.

Author : Mordvinova, Ye. I.; ~~Legchayev, V. Ya.~~
Inst : Smolensk Medical Institute.
Title : The Effect of Convaside on the Blood Vessels of
an Isolated Rabbit Ear with Intact Innervation
Under Conditions of Normal and Elevated Intra-
abdominal Pressure.

Orig Pub: Tr. Smolenskogo med. in-ta, 1957, 83-88.

Abstract: In rabbits, under chloroform anesthesia, the ear,
with intact innervation, was isolated by the
method of M. P. Nikolaev. Prior to this, and
without anesthesia, (through an incision in the
mid-abdominal line, 2 cm distally from the umbili-
cus) a thin rubber balloon, attached to a V shaped
manometer, was inserted into the abdominal cavity.

Card 1/2

, USSR / Pharmacology, Toxicology. Cardiovascular Drugs. V

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42379.

Abstract: Convaside (I) in concentration of 1:500 in Ringer-Locke solution, was perfused through the ear. The drops were counted every 5 min. The perfusion of I, under conditions of normal intraabdominal pressure (10 experiments) increased the number of drops of out-flowing fluid by an average of 51%, as compared with the basic flow. Upon elevation of the intraabdominal pressure by 20-22 mm of water column (5 experiments) the number of drops of the out-flowing fluid increased by 27%. Perfusion of I through the ear, under conditions of elevated intraabdominal pressure (8 experiments), increased the out-flow of fluid by 18%. -- L. N. Lavrent'yev

Card 2/2

LEGCHAYEV, V.Ya.

Pharmacology of Dioscorea caucasia. Farm. i toks. 22 no. 5: 424-426
S-O '59. (MIRA 13:3)

1. Kafedra farmakologii (ispolnyayushchiy obyazannosti zaveduyushchego -
dotsent A.I. Mitrofanov) Smolenskogo gosudarstvennogo meditsinskogo
instituta.

(PLANTS MEDICINAL pharmacol.)

LEGCHAYEV, V.Ya.

Effect of Dioscorea caucasica on white mice, rats, and guinea pigs in radiation sickness. Zdrav.Bel. 8 no.11:39-41 N '62.

(MIRA 16:5)

1. Iz kafedry farmakologii (ispolnyayushchiy obyazannosti zaveduyushchego - doktor med.nauk A.I. Mitrofanov) Smolenskogo meditsinskogo instituta.

(RADIATION SICKNESS)

(YAMS—THERAPEUTIC USE)

LEGCHAYEV, V. Ya., Cand Med Sci -- (diss) "Pharmacological characteristics of the Chinese yam /Dioscorea/ of the Caucasus." Smolensk, 1960. 15 pp; (Second Moscow State Medical Inst im N. I. Pirogov); 250 copies; price not given; (KL, 26-60, 143)

LEGCHAYEV, V.Ya.

Effect of rosmarinic acid on the bile secreting function of the liver.
Farm. i toks. 28 no.5:591-592 S-0 '65.

(MIRA 18:12)

1. Laboratoriya farmakologii (zav. - prof. A.D.Turova) Vsesoyuznogo instituta lekarstvennykh i aromaticeskikh rasteniy, Moskva, i kafedra farmakologii (zav. - prof. A.I.Mitrofanov) Smolenskogo meditsinskogo instituta. Submitted May 18, 1964.

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

[illegible]

SOV/124-58-1-650

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 68 (USSR)

AUTHOR: Legchenko, I. G.

TITLE: The Flow of a Surface Air Flow Past Obstacles in the Form of an Elliptical Half-cylinder and a Solid Fence (Obtekaniye prizemnykh potokom vozdukha prepyatstviy v vide ellipticheskogo polutsilindra i sploshnogo zabora)

PERIODICAL: Tr. Novosibir. in-ta zh. -d. transp., 1955, Nr 12, pp 136-148

ABSTRACT: The Poisson equation with a constant right-hand side for the stream function of a plane-parallel motion of an ideal incompressible fluid is solved in elliptical coordinates by means of Galerkin's method. The approximate solution of the problem is compared with Chaplygin's well-known solution of the problem of the vortex flow past a plate.
N. A. Slezkin

Card 1/1

LEGCHENKO, I.G.

Flow of a stream of incompressible fluid with a couple of following vortices around an elliptic cylinder. Izv.Sib.otd. AN SSSR no.9:52-59 '58. (MIRA 11:11)

1. Novosibirskiy institut inzhenerov zheleznodorozhnogo transporta.
(Aerodynamics) (Railroads--Train speed)

LEGCHENKO, I.G.

Effect of snow fences and other fences on snow blowing along
the earth. Izv.Sib.otd.AN SSSR no.7:25-37 '60.

(MIRA 13:8)

1. Novosibirskiy institut inzhenerov zheleznodorozhnogo
transporta.

(Snow fences)

L 08083-67 FSS-2/ENT(1)/EWP(t)/ETI/EWP(k) IJP(o) JGS/JD/HW

ACC No: AP6028389

SOURCE CODE: UR/0182/66/000/006/0002/0009

AUTHOR: Popov, Ye. A.; Bocharov, Yu. A.; Polyak, S. M.; Stolbunov, A. S.; Raykh, D. B.;
Legchilin, A. I.

ORG: none

TITLE: Deformation of metal by a pulsed magnetic field. Part II. Features of the mechanism
of deformation of a blank in a pulsed magnetic field

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 6, 1966, 2-9

TOPIC TAGS: high speed cine camera, capacitor, pulsed magnetic field, metal deformation/
SFR-2M high-speed cine camera, IM-5-150 capacitor

ABSTRACT: The pulsed, intermittent nature of the application of the magnetic field causes
the forces of inertia to affect greatly the process of deformation and, in particular to cause
plastic deformations in the blank after the load is no longer applied. Hence the process of de-
formation by means of a pulsed magnetic field (PMF) may be separated into an active and a
passive stage. To elucidate the mechanism of PMF deformation and the features of the kine-
matics of change in shape of the billet, this process was investigated with the aid of a SFR-2M

Card 1/3

UDC: 621.7.044

L 08983-67
ACC NR: AP6028389

high-speed motion picture camera with respect to a flat blank being drawn and formed in a ring die by means of 10- and 40-kilojoule devices based on DM-5-150 capacitors with a minimum discharge time of 10^{-6} sec. The kinograms thus obtained were used to construct curves of the displacements of individual points on the initially flat blank in time. Findings: during the initial stage of deformation the axial displacement of elements of the central part of the blank is smaller than that of the elements located closer to the die edge. During the later stages of deformation, however, the elements of the central part get additionally accelerated, overtaking the elements of the peripheral part of the blank. This is attributable to radial non-uniformity of the intensity of the magnetic field and it engenders plastic deformations in these elements; the plastic deformation continues until its work absorbs the difference between the kinetic energies of central and peripheral elements of the blank, or until the displacement rates of these elements get equalized. In addition, it is established that, all other things being equal, the increase in pulse energy leads to an increase in the height of the forging, while at the same time local convexity in the central part of the forging also increases. PMF forming of metals with low electrical conduction can result in much greater heights of the forgings if the inductor-facing surface of the blank is coated with a metal with high electrical conduction. It is further experimentally established that PMF forming can be used to perform assembling-joining operations if a cylindrical conductor is employed; thus, e.g. it can be used to produce more compact sheathed multicore cable. These are not the only applications of PMF. It is clearly ne-

2/3

D. 08983-67
ACC. NR: AP6028389

cessary to further investigate the possibilities of this new forming technique. Orig. art.
has: 9 figures, 5 formulas

SUB CODE: W20,14/ SUBM DATE: none/ ORIG REF: 002

Card 3/3 nst

LEGCHILINA, S.P.; SHISHKINA. T.A.

Use of biochemical mutations for obtaining high-producing strains synthesizing L-lysine. Genetika no.3:138-143 S '65.

(MIRA 18:12)

1. Institut atomnoy energii imeni I.V.Kurchatova, Moskva.

Submitted April 26, 1965.

LEGEDA YE.A.

GROSMAN, Yu.S.; LEGEDA, Ye.A.

Effect of vitamins C, PP, and B₂ on the course of acute poisoning from sodium nitrite. Farm.i toks. 19 supplement: 58-59 '56.

(MLRA 10:7)

1. Kafedra farmakologii (zav. - prof. S.V.TSyganov) Odesskogo gosudarstvennogo meditsinskogo instituta imeni N.I.Pirogova.

(NITRITES, poisoning,

sodium, eff. of vitamins C, PP & B₂ in rabbits (Rus))

(VITAMIN C, effects,

on exper, sodium nitrite pois. (Rus))

(VITAMIN B₂, effects,

same)

(NICOTINIC ACID, effects,

same)

LEGEDA, YE. A.

"Effect of Vitamins C, PP, and B₂ on the Course of Acute Intoxication by Sodium Nitrite," by Yu. S. Grosman and Ye. A. Legeda, Chair of Pharmacology (head, Prof S. V. Tsygancov), Odessa State Medical Institute imeni N. I. Pirogov, Farmakologiya i Toksikologiya, supplement for 1956, 1957, pp 58-59

This article reports the results of experiments which were conducted on rabbits, mainly males 1.8-2.5 kilograms in weight, to determine the effect of vitamins in intoxications by sodium nitrite. The following experiments were carried out: (1) control experiments in which the rabbits were administered subcutaneously 70 milligrams of sodium nitrite per kilogram of body weight; (2) control experiments in which the animals were administered subcutaneously 100 milligrams of sodium nitrite per kilogram of body weight; (3) control experiments in which the rabbits were administered intravenously methylene blue in doses of 5 milligrams per kilogram of body weight 30 minutes after the subcutaneous administration of sodium nitrite in doses of 100 milligrams per kilogram of body weight; and the fourth, fifth, sixth, and seventh experiments in which the effect of vitamins C, PP, and B₂ on intoxications induced by the subcutaneous administration of sodium nitrite was studied.

LEGEBA, YE. A.

On the basis of the experiments the following conclusions were arrived at: (1) the combined administration of ascorbic acid in doses of 40 milligrams per kilogram of body weight, sodium nicotinate in doses of 5 milligrams per kilogram of body weight, and riboflavin in doses of 0.4 milligram per kilogram of body weight, 30 minutes after intoxication by sodium nitrite occurred, was of great benefit as indicated by the large number of animals that recovered and remained alive; (2) this combination of vitamins was more effective when administered intravenously than when administered subcutaneously; (3) methylene blue in doses of 5 milligrams per kilogram of body weight failed to save the animals poisoned by sodium nitrite; (4) vitamins were considerably more effective than methylene blue in the therapy of intoxications by sodium nitrite. (U)

LEGEDZA, I.A.

Conditioned reflex sleep as a therapeutic method in erosions of the cervix uteri; preliminary communication. Klin. med., Moskva 30 no.9: 61-65 Sept 1952. (CIML 23:2)

1. Of the Obstetric-Gynecological Division (Head -- I. A. Legedza), Makarovskiy Rayon Hospital (Head Physician -- R. M. Satayeva), Kiev Oblast.

LEGEDZA, I.A., Cand Med Sci -- (diss) "Condition^{ad}
reflex~~es~~^{ed} sleep as a ~~therapeutic method for~~ ^{method of cervical} erosion."
~~of the cervix~~ "Mos, 1958, 12 pp (Min of Health
UKSSR. Dnepropetrovsk State Med Inst) 20 copies
(EL, 23-58, 112)

- 139 -

L 21859-65 / EWT(d) IJP(c)

ACCESSION NR: AP5004138

2/0045/64/000/003/0217/0233

AUTHOR: Legen, A. (Legen', A.) (Bratislava); Salat, T. (Shalat, T.) (Bratislava) B

TITLE: Certain applications of the method of categories in the theory of spaces of sequences 16

SOURCE: Matematicko-fyzikalny casopis, no. 3, 1964, 217-233

TOPIC TAGS: sequence, mathematic matrix
Abstract:

Theorem 1.1. Let (X, ρ) be a linear metric space and let $(s(X), \rho')$ be the space of all sequences of points in X , where

$$\rho'(x, y) = \sum_{i=1}^{\infty} \frac{1}{2^i} \frac{\rho(\xi_i, \eta_i)}{1 + \rho(\xi_i, \eta_i)}.$$

Let $a = \{\alpha_i\}_{i=1}^{\infty}$ be a sequence of numbers in a field T and assume that only finitely many α_i are equal to zero. If by $s'(X)$ we denote the set of all $x = \{\xi_i\}_{i=1}^{\infty}$, $x \in s(X)$ such that $\sum_{i=1}^{\infty} \alpha_i \xi_i$ converges in (X, ρ) , then $s'(X)$ is a set of the first category in $(s(X), \rho')$.

Theorem 1.2. Let X be a Banach [with norm $\|x\| = \rho(x, 0)$] over a field T ,
Card 1/4

L 21859-65

ACCESSION NR: AP5004138

and let $(s(X), e')$ have the same meaning as before. Moreover, let $A = (a_{nm})$ be an infinite lower triangular matrix of complex (real) numbers satisfying the following conditions:

$$(a) \lim_{n \rightarrow \infty} a_{nm} = 0, m = 1, 2, \dots;$$

$$(b) \lim_{n \rightarrow \infty} \sum_{m=1}^n a_{nm} = \beta, \beta \neq 0.$$

By $s_1(X)$ we denote the set of all $x = \{\xi_i\}_1^\infty \in s(X)$ that are summable by the matrix A . Then $s_1(X)$ is a set of the first category in $(s(X), e')$.

Theorem 2.1. Let $a = \{\alpha_i\}_1^\infty$ be a sequence of real numbers, and assume that only finitely many α_i can be equal to zero. Then, for all $x = \{\alpha_i\}_1^\infty \in s$ with the exception of points in sets of the first category (in s), we have

$$\liminf_{n \rightarrow \infty} \sum_{i=1}^n \alpha_i \xi_i = -\infty; \limsup_{n \rightarrow \infty} \sum_{i=1}^n \alpha_i \xi_i = +\infty. \quad (1)$$

Theorem 2.2. Let $A = (a_{nm})$ be an infinite matrix such that for each $n=1, 2, \dots$ there exists an m_n such that $a_{nm_n} \neq 0$ and $a_{nm} = 0$ for all $m > m_n$, and assume that $\limsup_{n \rightarrow \infty} m_n = +\infty$. Notation:

$$s'_1 = \{x = \{\xi_i\}_1^\infty \in s; \limsup_{n \rightarrow \infty} r_n(x) = +\infty, \liminf_{n \rightarrow \infty} r_n(x) = -\infty\}.$$

Card 2/4

L 21859-65

ACCESSION NR: AP5001138

Then the set s'_2 is a set of the second category in the space s .

Theorem 3.1. Let $a = \{a_i\}_{i=1}^{\infty}$ be a sequence of real numbers and assume that $a \notin l(p')$, where $l(p')$ is defined as usual and p' is a real number such that $1/p + 1/p' = 1$. Then, for all $x = \{x_i\}_{i=1}^{\infty} \in l(p)$, with the exception of points in sets of the first category, we have

$$\liminf_{n \rightarrow \infty} \sum_{i=1}^n a_i x_i = -\infty, \quad \limsup_{n \rightarrow \infty} \sum_{i=1}^n a_i x_i = +\infty. \quad (3)$$

It is a consequence of the following theorem that the "majority" of sequences $x = \{x_i\}_{i=1}^{\infty} \in l(p)$ converge to zero very slowly.

Theorem 3.2. Let $\{p_n\}_{n=1}^{\infty}$ be a sequence of positive real numbers and $\limsup_{n \rightarrow \infty} p_n = +\infty$. Then, for all $x \in l(p)$, with the exception of points in sets of the first category, we have

$$\liminf_{n \rightarrow \infty} p_n x_n = -\infty, \quad \limsup_{n \rightarrow \infty} p_n x_n = +\infty. \quad (4)$$

Theorem 4.1. Let $a = \{a_i\}_{i=1}^{\infty}$ be a sequence of real numbers, $\limsup_{n \rightarrow \infty} |a_n| = +\infty$,

Card 3/4

L 21859-65
ACCESSION NR: AP5001138

and let \mathbb{L} , as usual, be the set of all sequences of real numbers $x = \{\xi_i\}_{i=1}^{\infty}$ such that the series $\sum_{i=1}^{\infty} |\xi_i|$ converges. Then for all $x = \{\xi_i\}_{i=1}^{\infty} \in \mathbb{L}$, with the exception of points in sets of the first category,

$$\liminf_{n \rightarrow \infty} \sum_{i=1}^n a_i \xi_i = -\infty, \quad \limsup_{n \rightarrow \infty} \sum_{i=1}^n a_i \xi_i = +\infty$$

Orig. art. has 28 formulas.

ASSOCIATION: Katedra matematickej analyzy Prirodovedeckej fakulty Univerzity Komenskeho, Bratislava (Department of Mathematical Analysis of Natural Science Faculty at Comenius University)

SUBMITTED: 26 Jan 63

ENCL: 00

SUB CODE: MA

NO REP SOV: G02

OTHER: 011

JPRS

Card 4/4

CA Legenchenko, I. A.

Nitrides and kinetics of decomposition of ammonia on iron catalysts. I. A. Legenchenko (Inst. Chem. Technol., Dnepropetrovsk). — *Zhiv. Fiz. Khim.* 24, 311-20 (1950). — Dry NH_3 was passed through Fe catalyst (11 g. in 2-3-mm. pieces) at 400-450°. The NH_3 in the outgoing gas was sepd. and detd., and the ratio N:H in the residual gas was detd. interferometrically. If this ratio R was less than 1:3, Fe nitride (I) formation took place, and the amt. of I formed could be calcd. from R . During one expt., the rate v of decompn. of NH_3 increased with time and became almost const. (in, e.g., 10 min.); simultaneously, the rate w of I formation decreased and became almost zero in 10-20 min. (when the rate of gas flow was 6-10 l./hr.). The decompn. of NH_3 and the formation of I take place on different surface patches. This was confirmed by adding H_2 to NH_3 ; this addn. (e.g., 33 mol. %) little affected v but reduced w to, e.g., one-half. Addn. of H_2O (e.g. 3 mol. %) lowered v and had nuclear effect on w but extended the time of I formation so that the final amt. of I formed was greater than in dry NH_3 . Addn. of H_2O to NH_3 at a time when the catalyst already contained much I caused increase in R above 1:3, i.e. displacement of "chemically sorbed" N by H_2O . Decompn. of NH_3 can occur either directly or as a sequence: formation of I on inactive spots \rightarrow migration of I to active spots \rightarrow decompn. of I; poisons stop the migration. J. J. Bikerman

LEGENCHENKO, I. A.

FD 171

USSR/Chemistry - Soda Production

Card 1/1

Author : Legenchenko, I. A. Cand Chem Sci, and Demicheva, O. D.
Title : Experimental work on the development of a process for the purification of the brine at a soda plant.
Periodical : Khim. prom. 3, 31-33 (159-161), April-May 1954
Abstract : Describes development and pilot-plant work on the purification of sodium chloride solutions with calcium hydroxide and soda. Illustrated by 1 figure. Data are listed in 4 tables. 1 USSR reference is given.

Lebenchenko, I. D.

✓ Recovery of brine by direct and counter flow wells. I.
Lebenchenko (Soda Plant, Sterlitamak). Khim. Prom.
1959, 469-74. — The production of NaCl from subterranean
deposits is described. It is shown how the concn. of the
brine changes under various operating conditions, such as
speed of the H₂O flow, dimensions of the tubes, and how
much insol. matter is entrained under the various condi-
tions. Werner Jacobson

LEGENCHENKO, I. A.

5
4E4g
The role of carbamate in the process of carbonizing am-
monia-sodium chloride solutions. Z. V. Dolganova and
I. A. Legenchenko. J. Appl. Chem. U.S.S.R. 29, 1051-60
(1956) (English translation).--See C.A. 50, 17347i.

H. 10-10-10

FM fra
amb

DOLGANOVA, Z.V.; LEGENCHENKO, I.A.

The role of carbamate in the process of carbonizing ammonia - sodium chloride solutions. Zhur.prikl.khim. 29 no.7:961-971

Jl '57.

(Carbamic acid) (Carbonization)

(MIRA 10:10)

AUTHOR:

Legenchenko, I.A.

TITLE:

The use of the ion exchange equilibrium isotherm in discussing phenomena observed in chromatography of rare earths

PERIODICAL:

Ukrainskiy Khimicheskiy zhurnal, v. 29, no. 1, 1963, 25 - 30

TEXT:

The ion exchange isotherm is used in theoretical analyses of elution processes of rare earths on a cation exchange resin. Fundamental conclusions from papers of T.B. Gapon were used with considerable simplifications of the mathematical part, and some theoretical deductions presented upon the second and third parts of the column elution process, which are in good agreement with experimental data. The ion exchange isotherm

$$S_0 = K_{01} \frac{1/z_0}{1/z_1} S_1$$

exchange resin; a = activity of

(1)

The use of the ion exchange equilibrium isotherm

S/073/63/029/001/005/009
A057/A126

same ions in solution; z = charge of the ion; K = ion exchange constant) was simplified by assuming that the charges of ions are equal and also a = concentration. Thus the equation for a system with three types of ions becomes:

$$\frac{S_0}{C_0} = K_{01} \frac{S_1}{C_1} = K_{02} \frac{S_2}{C_2}, \quad (2)$$

giving results, which are qualitatively valuable also for ions with different valencies. Calculations of the effect of the complexing agent and the auxiliary cation are carried out in two variants. The development of the chromatographic process in liquid and solid phase is discussed on the example of a column with 15 elementary and 5 separating layers. The following facts, observed already in practice, were deduced theoretically in this paper: If relatively weak complexing agents are used, only low concentrations of rare earths can be expected in the filtrate. The solid phase will contain small quantities of rare earths if strong complexing agents are used and a separating layer charged with a cation forming instable complexes. The most effective separation of rare earths is effected by the elution with a strong complexing agent in combination with a monovalent cation (Na^+ , NH_4^+), carrying out the separation (third stage) on a cation

Card 2/3

The use of the ion exchange equilibrium isotherm

S/073/63/029/001/005/009
A057/A126

exchange resin layer loaded with a cation (Cu^{2+} , Fe^{3+}), which gives more stable complexes than the rare earths. Thus, according to the theory and experiments, a good separation of rare earths can be attained with high concentrations in the filtrate. There are 2 figures.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR, Laboratorii v Odessa (Institute of General and Inorganic Chemistry of the AS UkrSSR, Odessa Laboratories)

Card 3/3

S/073/63/029/004/001/003
A057/A126

AUTHOR: Kornelli, M.E., Legenchenko, I.A.

TITLE: Sorption of rare earth cations on a cation exchange resin. I. The equilibrium neodymium - hydrogen in the system solution - cation exchange resin at 25°C

PERIODICAL: Ukrainskiy khimicheskiy zhurnal, v. 29, no. 4, 1963, 359 - 363

TEXT: The ion exchange equilibrium of neodymium and hydrogen was investigated on the KV-2 (KU-2) cation exchange resin at 25°C and the total concentration of cations in the solution 0.04 N and 0.20 N. The batch method was used in a device with stirrer and inserted glass and calomel electrodes. The cation exchange resin was treated with 4 N HCl before use and had a granulation of $0.25 < d < 0.5$ mm. The concentration of cations in the solution was controlled by measuring the pH. For a given concentration of the anion a curve was plotted of the function of pH on the ratio of concentration $Nd^{3+}: H^{+}$. The curves obtained show in both cases (0.04 and 0.20 N) an anomalous maximum which could not be explained. The experimental data are in good agreement with the isotherm for the

Card 1/2

Sorption of rare earth cations on a cation exchange ... S/073/63/029/004/001/003
A057/A126

ion exchange neodymium - hydrogen, except the lower part at the maximum and left of it, where anomalous sorption processes occur. The equilibration curves were presented as straight lines

$$\frac{c_0}{c_1} = f\left(\frac{q}{c_0}\right)$$

and the ion exchange coefficients and total exchange capacity were determined to be: the ion exchange constant 0.0124 ± 0.0002 and the total ion exchange capacity 2.94 and 2.69 mg·equiv/g. The latter is in good agreement with literature data (2.75 mg·equiv/g). There are 5 figures, and 1 table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR laboratorii v Odesse (Institute of General and Inorganic Chemistry of the AS UkrSSR, Odessa Laboratories).

SUBMITTED: June 23, 1962

Card 2/2

L 11281-63

ACCESSION NR: AP3003993

EWP(q)/EWT(m)/BDS--AFFTC/ASD--RM/JD

8/0073/63/029/007/0709/0714

AUTHOR: Kornelli, M. E.; Legenchenko, I. A. 57

TITLE: Sorption of rare-earth cations on a cation exchanger. II. Kinetics of rare-earth cation sorption from dilute solutions on acidic cation exchanger KU-2 7

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 29, no. 7, 1963, 709-714

TOPIC TAGS: ion exchange, sorption, rare-earth element, lanthanum, neodymium, gadolinium, cation-exchanger, acidic cation-exchanger, sorption kinetics, diffusion, surface diffusion, dilute solution, KU-2

ABSTRACT: The rate of sorption of lanthanum, neodymium, and gadolinium cations from 0.01 N solutions of the chlorides has been studied because of its critical role in the technology of the rare earths. Apparatus, materials, and experimental procedure were described in Part I of this series. Concentration changes in the solution were measured over a period of time by means of a pH meter. The correlation between lanthanide/hydrogen concentration ratio and pH was established beforehand for a series of solutions at known concentrations without the cation exchanger. The plotting of curves of concentration (C) versus time (τ) made it possible to calculate the sorption rate ($-dC/d\tau$) for a given

Card 1/12

L 11281-63

ACCESSION NR: AP3003993

point on the curve. All experimental plots of sorption rate versus C were found to be straight lines expressed by the kinetic equation:

$$-dC/dt = kC - a, \quad (1)$$

where k is the rate constant and a is a quantity defining equilibrium concentration. The rate constant k was determined from the slope of the plot of rate versus C , and the apparent activation energy of sorption, from a plot of $-\log k$ versus $1/T$. The increase in k with temperature at 15—35°C was found to be uncharacteristic of chemical kinetics. The form of equation (1), the low apparent activation energies at 4120—6040 cal/mol, and the effect of cation-exchanger grain size suggested a surface-diffusion mechanism for the sorption. It is noted that k increased linearly with an increase in the weight of the cation-exchanger sample, while it decreased by a factor of 1.3—1.6 when the grain size was increased in a $1/2/4$ ratio. The sorption-kinetics parameters were nearly identical for Nd and Gd and were only slightly different for La. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: none

Card 2/32

KORNELLI, M.E.; LEGENCHENKO, I.A.

Sorption of rare-earth cations on a cation exchanger. Part 3:
Kinetics of the sorption of rare-earth elements on a KU-2 resin
in ammonium and sodium forms. Ukr. khim. zhur. 29 no.11:1147-
1150 '63. (MIRA 16:12)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR,
laboratorii v Odesse.

KORNELLI, M.E.; LEGENCHENKO, I.A.

Sorption of rare earth cations on a cation exchanger. Report No.4:
Equilibrium between rare earth cations and ammonium and sodium
cations in the system solution - cation exchanger. Ukr.khim.zhur.
30 no.2:165-169 '64. (MIRA 17:4)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR,
Laboratorii v Odesse.

L 32221-65 EWT(m)/EWG(m)/EWP(b) RWH/JD/JG/GS/RM
ACCESSION NR: AT5002301

AUTHOR: Kornelli, M. E.; Legenchenko, I. A.

S/0000/64/000/000/0024/0029

TITLE: Kinetics of the adsorption of rare earth elements by cation exchange resins
from low concentration solutions

SOURCE: AN SSSR. Institut fizicheskoy khimii. Issledovaniye svoystv ionoobmennyykh
materialov (Research on the properties of ion-exchange materials). Moscow, Izd-vo
Nauka, 1964, 24-29

TOPIC TAGS: column chromatography, cation exchange resin, rare earth, adsorption
kinetics

ABSTRACT: Solutions of LaCl_3 , NdCl_3 and GdCl_3 and commercial KU-2 cation exchange
resin in the H^+ , Na^+ , and NH_4^+ forms with grain diameters of 0.025, 0.25-0.50, and
0.5-1.0 mm were used in a study of the adsorption of the La, Nd, and Gd cations by ion
exchange resins at 15-50°C. The experiments were conducted in an assembly comprising
a thermostat with a mixer, a relay, an LP-58 potentiometer and a reaction vessel with
a mixer, as shown in Fig. 1 of the Enclosure as a function of temperature and cation
grain size was determined from the changing cation concentration in the solution
of the two-phase system in the adsorption process.

L 32221-65

ACCESSION NR: AT5002301

potentiometrically or trilonometrically. The results for La, presented in a diagram, were found to follow a straight line relationship, while those for Nd and H₂ resin were a curvilinear function of time. A diffusion mechanism of adsorption is assumed for the systems studied. Orig. art. has: 3 figures, 2 tables and 1 formula.

ASSOCIATION: none

SUBMITTED: 06Aug64

ENCL: 01

SUB CODE: IC, GC

NO REF SOV: 002

OTHER: 002

Card 2/3

L 32221-65

ACCESSION NR: AT5002301

ENCLOSURE: 01

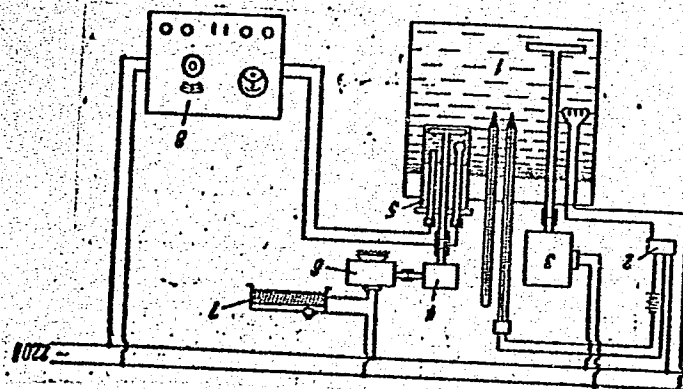


Fig. 1. Schematic diagram of the experimental set up: 1 - TS-158 thermostat, 2 - relay, 3 - motor, 4 - speed reducer, 5 - reaction vessel, 6 - motor, 7 - resistance, 8 - LP-58 potentiometer.

Card 3/3

L 2012-66 ENT(m)/ETC/ENG(m)/ENF(j)/T/ENP(t)/ENP(b) IJP(c) DS/JD/RM

ACCESSION NR: AP5023966

UR/0073/65/031/009/0898/0907
661.183.123

AUTHOR: Khromova, N. P.; Legenchenko, I. A.

TITLE: Sorption of ethylenediaminetetraaceto-complexes of rare earth elements by anion exchange resins. I. Kinetics of exchange of a lanthanum complex with chlorine anion over AV-17 anion exchange resin

SOURCE: Ukrainskiy khimicheskii zhurnal, v. 31, no. 9, 1965, 898-907

TOPIC TAGS: ion exchange resin, anionite, lanthanum compound, complex molecule, exchange reaction

ABSTRACT: The kinetics of exchange of lanthanum complexes with chlorine ion over AV-17 resin was studied in detail in order to develop a method of separation of rare earth elements. The starting lanthanum complex was prepared by exchange for lanthanum of a solution of the tetra-substituted sodium salt of ethylenediamine-tetraacetic acid using a lanthanum form of KU-2 cation exchange resin. The exchange duration over AV-17 resin varied from 50 to 400 min, the agitation was varied from 50 to 400 rpm, the resin particle size varied from 0-25 to 1.00-2.00 mm, and the temperature varied within 15-45°C. It was found that except for the ini-

Card 1/2

L 2012-66

ACCESSION NR: AP5023966

tial period of exchange over coarse resin particles, the rate of anion exchange is limited by external mass transfer. In the case of exchange over coarse resin particles (1.00-2.00 mm in diameter) the process is limited by internal mass-transfer. In the case of operation in the internal mass-transfer region, the overall exchange kinetics is strictly diffusion controlled. Orig. art. has: 7 figures, 4 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR, laboratorii v Odessa (Institute of General and Inorganic Chemistry AN UkrSSR, Odessa Laboratory)

SUBMITTED: 13Apr64

ENCL: 00

SUB CODE: IC, GC, MT

NO REF SOV: 006

OTHER: 008

Card 2/2

DP

LECHENKO, I.A.

Flow of wind around buildings in railroads and highways. Izv.
Sib. otd. (N 33-R no. 2-11-1962). (MIRA 17:8)

I. Novosibirskiy institut inzhenerov spetsializatsionnogo
transporta.

L 36128-66 ENT(m)/FWP(k)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6016575

(A)

SOURCE CODE: UR/0182/66/000/005/0001/0007 7/

AUTHOR: Popov, Ye. A.; Socharov, Yu. A.; Polyak, S.M.; Stolbunov, A. S.; Raykh, D. B.; Legchilin, A. X.

ORG: none

TITLE: Metal forming by means of a pulsed magnetic field, Part. 1. Nature of process and equipment

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 5, 1966, 1-7

TOPIC TAGS: pulsed magnetic field, metal forming, die, electric energy conversion

ABSTRACT: Metal forming by means of a pulsed magnetic field (PMF) is based on the conversion of the electric energy accumulated in the storage element during discharge via an inductor, to the energy of a pulsed magnetic field which creates the pressure shaping the metal blank. In this connection, the authors present formulas for determining the electric and magnetic parameters of the process. It is shown that the efficiency of PMF used in the forming of sheet metal ranges from 10 to 40%. There exist several techniques of PMF metal forming, as illustrated in Fig. 1: a) reduction of tube diameter by means of an inductor surrounding the tube (Fig. 1, a); b,c) flaring of the tube end by means of an inductor located within the tube (Fig. 1, b) with placement of die outside the tube in order to prevent the flaring of the remainder of

Card 1/3

UDC: 621.7.044,

L 36128-66
ACC NR: AP6016575

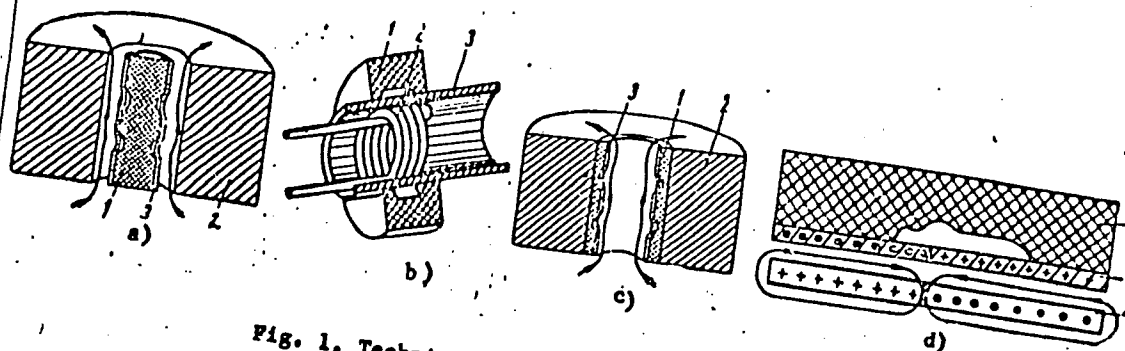


Fig. 1. Techniques of metal forming by means of PMF
1 - die (mandrol); 2 - inductor; 3 - blank

the tube after the field reaches a certain value (Fig. 1, c); d) sheet-metal forming by means of flat inductors (Fig. 1, d). In addition, PMF devices employing flat inductors may be used to blank and pierce metals, to assemble permanent connections, to

2/3

L 36128-66
ACC NR: AP6016575

straighten plane and curved surfaces, and to shape metal located within a chamber, housing or shell consisting of dielectric materials. These devices consist of five principal components: charger (high-voltage rectifier), power storage element (capacitor bank), discharger-switch (arc discharger), igniter (thyatron), and forming element (working inductor and die or mandrel along with attachments for clamping the blank). The specifications of a Soviet-built PMF metal-forming installation, include: supply voltage, 230 v; mean discharge current, 15 a; maximal energy stored in capacitor bank, 7.2 kilo-joules; maximum electromagnetic pressure exerted on blank, 6400 kg/cm²; time per cycle, 2 min; pulse time (half-period time), (40-50) 10⁻⁶ sec; maximum diameter of blank, 140 mm; dimensions of PMF installation, 1200x700x1500 mm. The second part of this investigation, which describes the mechanism of plastic deformation by means of PMF, will be published in the next issue of the same journal. Orig. art. has: 10 figures, 21 formulas.

SUB CODE: 13,20,11,09/ SUM DATE: none/ ORIG REF: 002/ OTH REF: 001/

END 3/3 ///

LEGENCHENKO, I. S.

Legenchenko, I. S. "On the problem of the causes of asphyxiation in the newborn and methods of combatting it", In the collection: Doklady Vsesoyuzn. resp. sovetskaniya pediatrov i akusherov-ginekologov (28-30 November 1946), Minsk, 1949, p. 39-55

SO: U-411, 17 July 1953, (Letopis 'Zhurnal 'nykh Statey, no. 20, 1949)

LEGENCHENKO, I.S.

New method of anesthesia and acceleration of labor. Akush. gin., Moskva
no.6:16-19 Nov-Dec 1951. (CJML 21:2)

1. Of the Obstetric-Gynecological Clinic (Director -- Docent I. S.
Legenchenko) of the Belorussian Institute for the Advanced Training
of Physicians.

LEGENCHENKO, I.S.

Letters to the editor. Akush. i gin. 34 no.4:122-123 J1-Ag '58
(RESUSCITATION) (MIRA 11:9)

LEGENCHENKO, I.S.

Position of the parturient in labor in the period of expulsion.
Zdrav. Belor. 4 no.2:8-10 F '58.

(MIRA 13:8)

1. Iz Minskogo gorodskogo rodil'nogo doma, bazy kafedry akusherstva
i ginekologii (glavnyy vrach i zaveduyushchiy kafedroy - dotsent I.S.
Legenchenko) Belorusskogo instituta usovershenstvov vrachey (direktor -
professor M.N.Zhukova).

(LABOR (OBSTETRICS))

LEGENCHENKO, I.S.

Treatment of vomiting in pregnancy. Zdrav.Bel. 8 no.7:72 J1 '62.
(MIRA 15:11)

1. Iz Minskogo gorodskogo rodil'nogo doma.
(ANESTHESIA IN OBSTETRICS) (VOMITING)

ACCESSION NR: AP4021978

S/0073/64/030/002/0165/0169

AUTHOR: Kornelli, M. E.; Legenchenko, L.A.

TITLE: Sorption of rare earth cations on cationite.
IV. Equilibrium between cations of the rare earth elements and ammonium and sodium cations in the solvent-cationite system

SOURCE: Ukrainskiy khimicheskii zhurnals, v. 30, no. 2, 1964, 165-169

TOPIC TAGS: rare earth element, sorption, cationite, KU-2 cationite, lanthanide, ion exchange, exchange equilibrium, exchange constant, neodymium, gadolinium, lanthanum, exchange capacity

ABSTRACT: This is a continuation of work (Ukr. khim. Zh., 29, 359 (1963)) on neodymium-hydrogen equilibria in solvent-cationite KU-2 systems. The sorption of rare earth cations on the sodium and ammonium form of the cationite was investigated. The equilibrium exchange of the three lanthanides studied with the monovalent (Na^+ and NH_4^+) cations is subject to the Nichols isotherm

$$\frac{S_o}{C_o} = K \sqrt[3]{\frac{\bar{S}_L}{C_L}}$$

Card 1/2

ACCESSION NR: AP4021978

where C_L is the concentration of the rare earth cation in the liquid phase; C_0 is the concentration of the cation partner in the liquid phase, S_L is the concentration of the lanthanide in the solid phase; and S_0 is the concentration of the cation partner in the solid phase. The exchange constants were determined for different conditions, varying initial lanthanide concentration, temperature and the form of the exchange resin. The constants are practically the same for Nd^{3+} and Gd^{3+} (about 4.65 mg. equiv./gm.) and somewhat different for La^{3+} . The exchange constants for all three lanthanides are higher in the case of exchange for ammonium than for exchange for the sodium cation. Increasing the temperature by 25° increases the exchange constant 6-15%, but does not affect the value of the total exchange capacity. Increasing the initial lanthanide concentration does not affect the exchange constant to a great extent. Orig. art. has: 4 figures, 5 equations and 2 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR, Laboratorii v Odesse (Institute of General and Inorganic Chemistry, AN UkrSSR, Odessa Laboratory)

SUBMITTED: 21 Apr 63

DATE ACQ: 09 Apr 64

ENCL: 00

SUB CODE: CH

NO REF SOV: 002

OTHER: 002

Card 2/2

Legenchenko, M. I.
LEGENCHENKO, M. I.

"Microchemical Elements (Copper and Zinc) in the Blood
of Children with Rheumatism." Minsk State Medical Inst, Minsk, 1954.
(Dissertation for the Degree of Candidate in Medical Sciences)

SO: M-955, 16 Feb 56

LEGENCHENKO, M.I., assistant

Treatment of toxic dyspepsia in children. Zdrav. Belor. 6 no.3:
25-29 Mr '60. (MIRA 13:5)

1. Iz kafedry detskikh bolezney Minskogo meditsinskogo instituta
(zaveduyushchiy kafedroy - professor V.A. Leonov).
(DYSPEPSIA)

S/133/62/000/012/001/012
A054/A127

AUTHORS: Yefimov, V.A., Candidate of Technical Sciences, Legenchuk, V.I.,
Sivtsov, G.V., Konovalov, I.M., Bykov, G.D., - Engineers

TITLE: Top-pouring steel under slag

PERIODICAL: Stal', no. 12, 1962, 1,074 - 1,078

TEXT: To improve the quality of the surface of top-poured low-carbon steel ingots, the processes taking place at the contact-surfaces of metal, slag and ingot-mold have been investigated at the Cherepovetskiy metallurgicheskiy zavod (Cherepovetsk Metallurgical Plant). The quality of the ingot surface is known to depend on the size of the liquid metal meniscus forming at the place of contact between mold wall and metal. The radius of this convex meniscus depends on the surface stresses at the boundary between metal and liquid slag. It was found that addition of synthetic slags on the mold bottom considerably improved the conditions of skin formation and, consequently, also the quality of the metal surface. For, if the slowly rising metal is covered by a low-smelting slag layer, the latter will protect the metal against oxidation and cooling, it will adsorb

Card 1/4

Top-pouring steel under slag

S/133/62/000/012/001/012

A054/A127

the high-smelting reduction products and prevent the creasing of the skin. The liquid slag penetrates between the metal meniscus and the mold wall and forms a heat-insulating layer. This will cause the skin of the metal to cool down more slowly and will reduce the shrinkage stresses. The slag composition must ensure a heat-insulating layer of optimum thickness between mold wall and ingot. The greater the meniscus radius, the thicker the slag crust will be. The optimum surface tension of the slag must be determined experimentally. The required viscosity of the synthetic slag can be ensured by addition of liquefiers. Moistening of the mold wall tends to thicken the solidifying slag layer. It is advisable to coat the mold wall with a substance of high surface tension, such as aqueous graphite suspension or lime milk. The method has been applied in the top-pouring of Ct.3cn (St.3sp), 3T (3t) and 19 T (19G) low-carbon grades. The following slag compositions were tested:

Components, %	A	B	C	D	E
cupola furnace slag	-	100	90	95	93
fluorite	24	-	10	5	7
Grain size, mm	1-0	3-0	3-0	5-2	3-0

Card 2/4

S/133/62/000/012/001/012

A054/A127

Top-pouring steel under slag

	A	B	C	D	E
Chemical composition, %					
CaO	20.0	26.7	24.2	24.2	30.0
SiO ₂	15.2	43.2	39.0	43.0	40.5
Al ₂ O ₃	22.8	18.9	17.1	12.9	10.9
CaF ₂	38.0	-	9.5	4.6	6.5
FeO	2.0	5.6	5.0	9.7	7.0
MgO	2.0	2.0	1.8	1.7	2.1
MnO	-	3.6	3.4	3.9	3.0
Surface tension (calculated, dyne/cm)	425	428	421	402	403

Slag was fed into the mold prior to pouring, in some tests it was also added onto the metal surface during pouring. To accelerate the smelting of the slag, the quantity of fluorite was raised to 25%; at the beginning of the tests the amount of slag added was 60 - 80 kg, later this was reduced to 40 kg (3 kg/ton), because when greater amounts were added, the bottom part of the ingot deteriorated. The favorable effect of the new method can be seen from a comparison of the defect percentages of conventional and slag-poured ingots: the amount of cracks and

Card 3/4

Top-pouring steel under slag

S/133/62/000/012/001/012

A054/A127

fissures in the latter was reduced by a factor of 4, that of scales by a factor of 6. The labor consumption for cleaning the 13.6-ton slabs poured under slag decreased by a factor of more than 2. The article contains formulae for the calculation of the forces involved in the formation of the meniscus and the slag layer. There are 4 figures.

ASSOCIATION: Institut ispol'zovaniya gaza AN USSR (Institute of Gas-Utilization of the Academy of Sciences of the Ukrainskaya SSR) and Cherepovetskiy metallurgicheskiy zavod (Cherepovetsk Metallurgical Plant)

Card 4/4

YEGIMOV, V.A.; OSIPOV, V.P.; SAPKO, V.N.; LEGENCHUK, V.I.; SIVTSOV, G.V.;
BYKOV, G.D.

Measures for improving the top pouring of steel. Vop. proizv.
stali no.9:79-95 '63. (MIRA 16:9)

YEFIMOV, V.A., kand.tekhn.nauk; LEGENCHUK, V.I., inzh.; SIVTSOV, G.V., inzh.;
KONOVALOV, I.M., inzh.; BYKOV, G.D., inzh.; TATYANSHCHIKOV, A.G.,
inzh.

Top pouring of steel under slag. Stal' 22 no.12:1074-1078 D '62.
(MIRA 15:12)

1. Institut ispol'zovaniya gaza AN UkrSSR i Cherepovetskiy metal-
lurgicheskiy zavod.

(Steel ~~ispol'z~~)

KAGAN, M.S., kand.khimicheskikh nauk; LEGEN'KAYA, L.M.; KHURTINA, Ye.V.

Determining the integral absorbed radiation dosage for white
mice during their irradiation in a radiation chamber. Uch.zap.
Pyat.gos.nauch.-issl.bal'n.inst. 3:397-413 '60. (MIRA 15:10)
(RADON) (RADIATION--DOSAGE)

DERYABINA, V.M.; KAGAN, M.S.; LEGEN'KAYA, L.M.; KHURTINA, Ye.V.

Physiological and dosimetric studies of the effect of radon water administered internally on the secretory function of the stomach. Med.rad. no.3:39-45 '62. (MIRA 15:3)

1. Iz eksperimental'nogo otdela (zav. - prof. A.K. Pislegin) i radiologicheskoy laboratorii (zav. - kand.med.nauk M.S. Kagan) Pyatigorskogo nauchno-issledovatel'skogo bal'neologicheskogo instituta.

(RADON)

(STOMACH--SECRETIONS)

LEGEN'KAYA, Ye.F.

The physicogeographical regionalization of the Saratov right bank.
Uch.zap. Sar. un. 72:61-65 '59. (MIRA 13:8)
(Saratov Province--Physical geography)

LEGEN'KAYA, Ye.P., assistant

Apple scab in Kursk Province. Zashch. rast. ot vred. i bol. 7 no.8:
57 Ag '62. (MIRA 15:12)

1. Kafedra zashchity rasteniy Kurakogo sel'skokhozyaystvennogo
instituta.

(Kursk Province—Apple scab)

MIROVALEVA, Z.G., dotsent; SHANGIN, N.I.; LEGEN'KIY, I.G., assistant;
SLOBODENYUK, N.I.

Public health of the Province and City of Omsk on the 40th anniversary
of Soviet power. Trudy OMI no.25:23-48 '59. (MIRA 14:10)

1. Iz kafedry organizatsii zdravookhraneniya Omskogo meditsinskogo
instituta imeni Kalinina, zav. kafedroy dotsent Z.G.Mirovaleva.
(OMSK PROVINCE—PUBLIC HEALTH)

LEGEN'KIY, I.G.

Review of R.I. Samarin's "Studies on the history of the Kazakhstan
public health system," Sov.zdrav. 18 no.9:55-57 '59. (MIRA 12:11)
(KAZAKHSTAN--PUBLIC HEALTH)
(SAMARIN, R.I.)

LEGEN'KIY, I.G.

Improve medical care for state farm members in the virgin lands.
Zdrav. Ros. Feder. 4 no. 10:42-45 0 '60. (MIRA 13:10)
(SIBERIA, WESTERN—AGRICULTURAL WORKERS—MEDICAL CARE)

SHANGIN, N.I., prof. (Omsk); LEGEN'KIY, I.G., doctent (Omsk)

Forty years of sli rendered to the public health agencies of
Omsk Province. Trudy Perma. gos. med. inst. 43:31-37 '63.
(MIRA 17:6)

LEGEN'KIY, I.G., dotsent (Omsk)

"Social forms in the activity of the public health agencies
of Omsk Province" by M.E.Poliakova. Reviewed by I.G.Legen'kii.
Sov.zdrav. 22 no.4:87-88 '63. (MIRA 16:4)

1. Kafedra organizatsii zdravookhraneniya Omskogo meditsinskogo
instituta.
(OMSK PROVINCE--PUBLIC HEALTH) (POLIAKOVA, M.E.)

LEGEN'KIY, I.N., kand. sel'skokhoz. nauk

Injuries to seed during threshing. Zemledelie 26 no.7:52-53 J1 '64.
(MIRA 18:7)

LEGEN'KIY, V.I., monter kontaktnoy seti

Electricians servicing contact networks need comfortable work clothes. Elek. i tepl. tiaga 4 no.5:46 My '60.

(MIRA 13:7)

(Electric railroads) (Work clothes)

LEGEN'KO, A., inzhener.

Precision casting in ship repair. Mor.i rech.flot 13 no.6:21-23 0 '53.

(MLRA 6:10)

(Founding) (Ships--Maintenance and repair)

LEGEN'KO H.

YEGOROV, V., inzhener; LEGEN'KO, A., inzhener.

Mechanized plant for the thermal treatment of cast anchor
chains. Mor. 1 rech.flot 14 no.11:12-14 N '54. (MLBA 7:11)
(Furnaces)

LEGEN'KO, A. S. Cand. Tech. Sci.

Dissertation: "Cupola Steely Pig Iron. Investigation of the Hereditary Characteristics of Foundry Pig Iron from NTM2 and from Krivoy Rog." Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman, 20 Oct 47.

SO: Vechernyaya Moskva, Oct, 1947 (Project #17836)

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2. SSSR (600)

4. Metalworking Machinery

7. Producing quality castings under pressure in machines with horizontal compartments.

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